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The Federal Communications Commission
Washington, D. C.

RE: Comments on RM-11306

Dear Commissioners:

As an amateur radio operator for over 35 years and an ARRL Life Member, I respectfully request that the Commission DENY in its entirety the ARRL Regulation by Bandwidth Proposal, RM-11306. The proposal as written appears to be ill conceived, lacking in documentation and substance, disrespectful of current amateur practice and technically flawed. In addition, there does not appear to be any clear need for a change in the band regulations and the ARRL has apparently not considered the ramifications of such a change in regulatory philosophy.

In general, the text of the proposal seems to speak in broad generalities and offers no real technical information or data on which to base the recommendations. There appear to be several areas where there is a lapse in logic and many unsubstantiated claims as to what is popular.

Indeed, in a recent (January 2006) ARRL Great Lakes Division newsletter, ARRL Director Jim Weaver stated: “There are still more aspects to band planning than this, but I think you have the idea. In other words, the tough work has not yet been discussed.” It appears that the ARRL has admitted that they have not yet considered the most important aspects of its own recommendation. Unfortunately, coming from an organization claiming to represent amateur radio, such failure to consider all effects before submitting a proposal would seem to constitute a waste of taxpayer and Commission resources.

A more detailed analysis of the specific amendments in RM-11306 are as follows:

Section 97.3(a)(8) is amended to read as follows:

Bandwidth. For a given class of emission, the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions (See the definition of Necessary Bandwidth in Section 2. I of this Chapter and Section 97. 101 (a) of this Part).

The definition and acceptable means for calculating Necessary Bandwidth are detailed in 47 CFR 2.202 and 47 CFR 97.101 simply states that good engineering and amateur practice should be followed in everything not specifically mentioned in the rules. While this definition by itself has no direct bearing on the current regulations, it is of paramount importance should the regulations be changed to reflect management by bandwidth. Unfortunately the ARRL has overlooked how to apply the definition to the cases where mixed modes are used, which is one of the primary reasons that they give for making a change in regulatory philosophy.

Section 97.3(a)(42) is amended to read as follows:

(42) Spurious Emission. For the purposes of this Part, emission on a frequency or frequencies which are outside the allocated frequency band and which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products and frequency conversion products.

Note that this definition changes significantly. Whereas the current regulations define a spurious emission as being outside the necessary bandwidth, the ARRL now wants to change things to be

regulated by necessary bandwidth, but allow spurious emissions as long as they are within the band allocation. This is obviously poorly considered and defies logic. Allowing spurious emissions outside the necessary bandwidth of a transmission is generally considered to be poor amateur practice and can cause harmful interference to adjacent signals. This change promotes neither the efficient use of the available spectrum nor technical innovation. Instead it promotes the acceptance of poorly designed and operated equipment and removes the ability of those being interfered with to request relief from such harmful interference.

Section 97.109(e) is amended to read as follows:
897.109 Station control.
*(a) ... ******
(e) No station may be automatically controlled while transmitting third party communications, except a station transmitting a RTTY or data emission. All messages that are retransmitted must originate at a station that is being locally or remotely controlled.

There is currently no 97.109e. This proposed addition to the rules once again defies logic since it mixes the technical issue of station control with message contents, makes a mode-based exception and applies only to third party communications. If the regulatory philosophy is to be changed to one based on bandwidth rather than mode, making a blatant exception to well defined rules based on mode should serve as a clear example that the proposed philosophy change is ill conceived.

Section 97.119 is amended to read as follows:

97.119 Station identification.
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(b). . .
(1) By a CW or MCW emission. When keyed by an automatic device used only for identification, the speed must not exceed 20 words per minute;
(2) By a phone emission in the English language where a bandwidth of at least 3.5 kHz is authorized. Use of a standard phonetic alphabet as an aid for correct station identification is encouraged;
(3) By the same emission as used for the communication.
(4) (Deleted)

IIn (2) they add that phone identification is only allowed where bandwidths of at least 3.5 kHz are permitted. This seems to be an unnecessary regulation, since narrower bandwidths normally would not support voice identification anyway.

In (3) and by deletion of (4) they attempt to combine image and data for purposes of identification, but don't say what happens in the case of mixed mode emissions. This appears to be a serious oversight, since they say part of the reason for the rules changes are to encourage mixed modes.

Once again, the specific mention of modes in this section represents a complication of the regulations and leads to the logical conclusion that bandwidth-based regulation does not make sense in the overall structure of amateur radio regulations.

Section 97.221 is amended to read as follows:

97.221 Automatically controlled stations transmitting RTTY or data emissions.
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(b) A station may be automatically controlled while transmitting a RTTY or data emission on the 6m or shorter wavelength bands, and on the 28.120-28.189 MHz, 21.150-21.160 MHz, 14.100, 14.112 MHz, 10.140-10.150 MHz, 7.100-7.105 MHz, or 3.620-3.635 MHz segments.
(c) A station transmitting a RTTY or data emission may be automatically controlled on any other

frequency authorized for such emission types provided that the station is responding to interrogation by a station under local or remote control.
(1) (Deleted)
(2) (Deleted)

Section b) removes the automatic control sub-bands on the 12 and 17m bands and changes the current sub-bands on 15 and 20m. Note that repeaters and beacons, as well as space stations, would be exempt from this rule.

Section c) would allow semi-automated operation anywhere at the bandwidth allowed on the frequency. This represents a serious change in the regulations and experience indicates that more interference will result should the Commission implement this rule. It is interesting to note that automated control has not been an issue with CW or SSB transmissions, so this rule change effectively gives digital modes special permission to operate anywhere. The Commission's own records should indicate the extent of the interference problems due to allowing semi-automated stations to respond to interrogation by another station. Once again, the use of mode-based rule exceptions clearly shows that this proposal is a poorly disguised attempt to allow more operating flexibility for automated digital operations at the expense of the more commonly used modes.

Section 97.305 is amended to read as follows:

97.305 Authorized emission types.
(a) An amateur station may transmit a CW emission on any frequency authorized to the control operator except for the frequencies in the 60 m band.
(b) A station may transmit a test emission on any frequency authorized to the control operator for brief periods for experimental purposes. Test transmissions are authorized in the segments 51-54 MHz, 144.1-148.0 MHz and on all bands above 222 MHz.
(c) Pulse emissions are permitted on all bands authorized to the control operator above 902 Mhz except in the 23 cm and 3 cm bands.
(d) SS emissions are permitted on all bands authorized to the control operator above 420 Mhz.
(e) Except as otherwise provided in this Section, a station may transmit any emission on any frequency authorized to the control operator subject to the following bandwidth limitations:

[Large table follows]

Section b) seems to add some band segments where test transmissions are specifically allowed, right after saying that they are allowed everywhere for brief periods for experimental purposes. The only conceivable reason for specifically mentioning the band segments in the 6 and 2 meter bands and all frequencies above 222 MHz is to remove the restriction on "brief periods and for experimental purposes" since test transmissions would already be allowed everywhere. It would seem that should an exception to normal "test transmissions" be needed for long periods of time or for other than experimental purposes, the FCC already has in place an STA process to receive authorization. The STA program has been successful over many years and serves as a regulation to disallow uncontrolled and ill-conceived use of frequencies. The ARRL proposal would by pass this procedure and allow emissions under the guise of testing without regard to other considerations.

97.307 Emission standards.
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(f) The following standards and limitations apply to transmissions on the frequencies specified in 97.305(e) of this Part.
(1) The 3.5 kHz maximum bandwidth does not apply to double-sideband amplitude-modulated phone A3E emissions which are limited to bandwidths of up to 9 kHz.
(2) Phone and image emissions with a maximum bandwidth of 3.5 kHz may be transmitted only by stations located in ITU Regions 1 and 3, and by stations located within ITU Region 2 that are west of 130" West longitude or south of 20" North latitude.

(3) No specific bandwidth limitations apply except that the entire emission must be within the allocated band to meet the requirements of 97.307(d).
(4) through (1 3) (Deleted)

Section 1) specifies a bandwidth exemption for AM mode, once again illustrating that regulation based on bandwidth cannot be implemented without mode-based exceptions. The rest of the section that is deleted bears further evaluation to identify problems and side effects. Unfortunately the ARRL has not evaluated these effects and one must conclude that their proposal satisfies most criteria for a "half baked idea."

Section 97.309 is amended to read as follows:

97.309 RTTY and data emission codes.
(a) Where authorized by 97.305(e) and 97.307(0 of this Part, an amateur station may transmit a RTTY or data emission using published digital codes for the purpose of facilitating communications.
(b) When deemed necessary by the FCC's Enforcement Bureau to assure compliance with the FCC Rules, a station must:
(1) Cease the transmission using the unspecified digital code;
(2) Restrict transmissions of any digital code to the extent instructed; and
(3) Maintain a record, convertible to the original information, of all digital communications transmitted.

Section a) attempts to add flexibility to the use of digital codes. Unfortunately the term "published" is not defined? Published where? In a private memo, journal? The larger question here is: What are the effects of removing all the other verbiage in the current rules, including the restriction on using codes not covered by international agreements? The ARRL has failed to evaluate the effect of their proposed rule changes and have presented no reasons why a change from the current standard is needed.

In view of the seriously flawed nature of the recommendations put forth by the ARRL in their proposal, I respectfully request that the Commission **DENY** in its entirety RM-11306.

Sincerely,

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ARRL Life Member